

The occurrence of *Rana malabarica* observed in and around Kanha is an extension of its range. It was reported earlier from Jagdalpur in Bastar district (Daniel and Selukar 1964) now in Chattisgarh, about 350 km southeast of Kanha. The present report from Kanha in the Satpuras (Maikal Range) definitely strengthens the view that the species has a much wider distribution in the Peninsula. However, around Kanha, it is definitely not a common species, as it appears only during two or three months of the year, unlike in southwest India and also perhaps in Bastar, where it is stated to be not uncommon (Daniel and Selukar 1964).

Essentially a forest dweller, *Rana malabarica* seems to prefer moist-deciduous biotopes to dry deciduous tracts and perhaps this explains why it is absent (?) between the Kasara Ghat (Maharashtra) and Eastern Satpura trend of hills with sal forests. Having been reported from Bastar already, the species may very well occur in the Eastern Ghats.

January 18, 2002

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29. A NOTE ON *MESONOEMACHEILUS HERREI* NALBANT AND BANARESCU
(CYPRINIFORMES: BALITORIDAE: NOEMACHEILINAE)

(With one plate)

Mesonoemacheilus herrei described by Nalbant and Banarescu (in Asket Singh *et al.* 1981) was based on collections made from Puthutotam Estate, Valparai in Anamalai Hills by Herre in 1941, and identified as belonging to the species *guentheri*. Nalbant and Banarescu distinguished *herrei* from *guentheri* (described by Day from Nilgiri Hills), based on several characters, including differences in colour pattern and structure of scales (white spots on body being more roundish and regularly disposed in *guentheri* vs. white coloration 'V' or 'Y'-shaped in *herrei*; scales with reduced and eccentric focal zone in the former vs. a central and much larger focal zone in the latter).

Menon (1987), in his revisionary study of the Noemacheilids, treated *herrei* as a synonym of *guentheri*. However, Jayaram (1999), following Banarescu and Nalbant (1995), retained it as a separate species. No specimens

of *herrei* were reported subsequent to its original description. Silas (1951), in his paper on the fishes of Anamalai and Nelliampathi Hill ranges, reported collection of *Noemacheilus triangularis* from the streams draining the Ponnani drainage system in the Nelliampathi Hills. *N. herrei*, especially the juveniles, superficially resemble both *guentheri* and *triangularis*, and the specimens named *triangularis* by Silas (op. cit.) could possibly be *herrei*, described subsequently by Nalbant and Banarescu. More recently, six survey teams of the Zoological Survey of India (1996-1998) collected three species of *Noemacheilus* from the Anamalais, namely *denisoni*, *herrei* and *monilis*.

A total of 27 specimens of *herrei*, ranging in length from 20.5-52 mm SL were collected from two localities and Kolikamuthi at altitudes 890 m and 870 m respectively. *M. herrei* (Plate 1, Fig.1) is reported here, and an attempt is made

to distinguish the species from *guentheri* (Plate 1, Fig. 2). A key to all the Mesonoemacheilid species, including two species described subsequent to the publication of Jayaram (1999) is also given.

Material studied: 3 exs., 30-34 mm SL, Reg. No. F.4941, Varagalayar, 890 m, 4.ii.1996, Coll. M.B. Raghunathan; 3 exs., 34-48 mm SL, F. 5772, Kolikamuthi, 870 m, 21.ii.1998, Coll. M.S. Ravichandran.

Morphometric characters measured by standard methods are presented in Table 1, mostly in relation to standard length and head length with the mean followed by the range in parentheses. The meristic characters are as follows. D. 3/7-8; P. 1/9-11; V. 1/7; A. 3/5; C. 1/16/1. Additional morphometric differences observed in larger specimens are detailed below. Fins and eye being larger in juveniles, it is difficult to segregate them based on these characters alone Table 1.

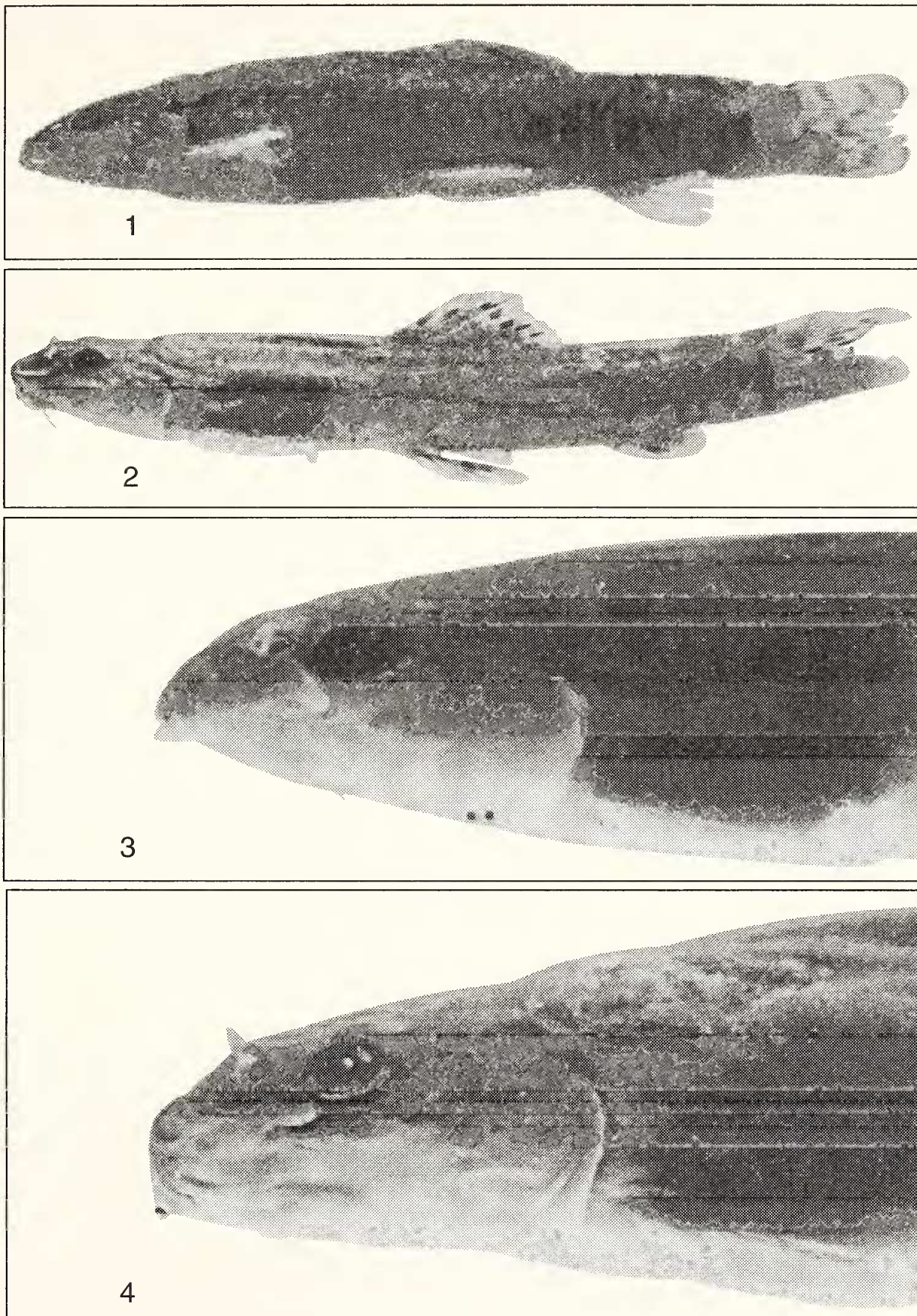
KEY TO THE *MESONOEMACHEILUS* SPECIES

- 1. Dorsal with 10 branched rays .. *M. pulchellus*
- Dorsal with variable number of branched rays (8-10)..... 2

- 2. Dorsal with 7-8 branched rays; body depth less than 5.5 in SL 3
- Dorsal with 8-10, mostly 9, branched rays; body very elongate, depth more than 5.5 times in SL *M. pambarensis*
- 3. Two or three rows of large yellow spots edged with black on the sides..... 4
- Body with reticulate, oblique or vertical bands 5
- 4. Spots rounded; caudal peduncle long, anal not reaching caudal base; a band on caudal base *M. guentheri*
- Spots V- or Y-shaped; caudal peduncle short; anal fin reaching caudal base; spot on caudal base present..... *M. herrei*
- 5. Body with reticulate pattern of dark wavy bands and blotches on lighter ground *M. menoni*
- Body with light oblique and vertical bands on darker or lighter ground 6
- 6. Body with 6-7 oblique light bands having black edges 7
- Body with irregular vertical dark bands 8
- 7. Distance from vent to anal fin about 4 times in the distance from pelvic to anal fin *M. triangularis triangularis*
- Distance from vent to anal fin about 6 times in the distance between pelvic and anal fin *M. triangularis tambraparanei*
- 8. Lateral line complete, 8 to 10 brown bands

TABLE I
MORPHOLOGICAL COMPARISON OF *MESONOEMACHEILUS GUENTHERI* AND *M. HERREI*

| <i>guentheri</i> (Plate 1, Figs 2 & 4) | <i>herrei</i> (Plate 1, Figs 1 & 3) |
|--|--|
| a. Suborbital flap not pronounced, shorter than broad (Fig. 4). | : Suborbital flap well-developed, longer than broad (Fig. 3). |
| b. Nostrils situated more than half eye-diameter distance before eyes. | : Nostrils closer to eyes, distance between nostril and eye less than half eye diameter. |
| c. Lateral line prominent and complete. | : Lateral line almost incomplete and distinct only up to anal origin, after which it is discontinuous or absent. |
| d. Distance from pelvic to anal origin greater, pelvic fin reaching ½ the distance to anal origin. | : Distance from pelvic to anal shorter, pelvic reaching ¾ the distance to anal origin. |
| e. Caudal peduncle longer than broad. | : Caudal peduncle as long as broad. |
| f. Anal not reaching caudal base. | : Anal reaching caudal base. |
| g. Caudal base with a dark band | : Caudal base with a well marked roundish blotch. |



Figs 1-4: 1. Lateral view of *Mesonoemacheilus herrei*, 48 mm SL,
2. Lateral view of *Mesonoemacheilus guentheri*, 59 mm SL,
3. Enlarged view of head of *herrei* showing long suborbital flap,
4. Enlarged view of head of *guentheri* showing short suborbital flap

TABLE I
MORPHOMETRIC DETAILS OF *HERREI* FROM
INDIRA GANDHI WILDLIFE SANCTUARY

| Characters | % SL |
|--|-----------------------|
| Head length | 23.81 (22.52-25.37) |
| Body depth | 17.34 (16.87-18.59) |
| Predorsal distance | 50.25 (47.84-52.91) |
| Postdorsal distance | 49.26 (44.64-52.08) |
| Prepelvic distance | 51.81 (50.76-53.47) |
| Preanal distance | 77.52 (72.46-80.00) |
| Length of Caudal fin | 25.97 (25.0-29.41) |
| Length of Pectoral fin | 20.79 (18.35-22.02) |
| Length of Pelvic fin | 17.73 (16.61-18.65) |
| Length of Anal fin | 13.89 (13.55-14.39) |
| Length of Body cavity | 51.02 (49.50-52.35) |
| Length of caudal peduncle | 13.23 (12.16-14.77) |
| | %HL |
| Eye diameter | 19.01 (16.66-20.28) |
| Snout length | 35.71 (33.33-36.63) |
| Inter-orbital width | 28.65 (26.31-31.15) |
| Length of Pectoral fin | 87.72 (81.30-91.74) |
| Snout-Eye diameter | 53.19 (46.95-59.17) |
| Inter-Orbital width/Eye diameter | 66.22 (58.48-74.07) |
| Body depth/Body width | 87.72 (85.47-92.59) |
| Caudal fin/Head length | 19.27 (16.26-21.69) |
| Distance between Pelvic to anal fin /Distance between anus to anal fin | 19.27 (16.26-21.69) |
| Length of caudal peduncle/ Height of caudal peduncle | 101.01 (90.09-111.11) |
| Distance between Pectoral to Ventral fin /Distance between Ventral to Anal fin | 90.09 (83.33-101.01) |

across back, broken up into secondary bands below lateral line; males with suborbital spine *M. sijuensis*
 — Lateral line incomplete; males without suborbital spine 9
 9. Lateral line ending below dorsal fin or slightly in front of it, with a number of irregular V- or Y-shaped cross bands *M. reticulofasciatus*
 — Lateral line ending above end of anal fin base (7 or 8 saddle-shaped black bands on back; sides marked by varying number of bands broken up into narrow bands anteriorly
 *M. petrubanarescui*

ACKNOWLEDGEMENTS

We thank the Director, Zoological Survey of India and the Officer-in-Charge of Southern Regional Station, Dr. P.T. Cherian for facilities and especially the latter for going through the manuscript. We also thank Dr. A.G.K. Menon, Emeritus Scientist, Zoological Survey of India, Chennai for guidance.

January 22, 2002

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30. FISH FAUNA OF SOME STREAMS AND RIVERS
IN THE WESTERN GHATS OF MAHARASHTRA

The documentation of fish fauna is essential, as major changes have occurred in the streams and rivers of the Western Ghats, in the Indian peninsula. Major rivers, such as the

Godavari, Krishna and the Bheema, originate in the Maharashtra part of the Western Ghats. This documentation is part of a detailed programme on fish diversity in Western Ghats